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PATENT

**UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES**

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BRIEF ON APPEAL

Sir:

This Brief supports the appeal to the Board of Patent Appeals and Interferences from the final rejection dated June 9, 2005 in the present application. Appellant files a Notice of Appeal herewith, and now submits this Brief.

I. REAL PARTY IN INTEREST

Spectra Logic Corp., as assignee of U.S. Patent Application No. 10/604,108 (Reel/Frame 014153/0400), having offices at 1700 North 55th Street, Boulder, Colorado 80301, is the real party in interest.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences pertaining to the above identified

application.

III. STATUS OF CLAIMS

A. Claims 1 – 20 Are Finally Rejected

Claims 1 – 20 were rejected in the final Office Action dated June 9, 2005. The Examiner has rejected claim 1 under 35 U.S.C. § 103(c) as being unpatentable for obviousness over U.S. Patent No. 5,818,723 to Dimitri (hereinafter referred to as "Dimitri") in view of U.S. Patent No. 5,440,637 to VanFleet (hereinafter referred to as "VanFleet") and published U.S. Application No. 2003/0021058 to Gallo et al (hereinafter referred to as "Gallo"). Dimitri and VanFleet and Gallo used collectively are hereinafter referred to as "the references."

B. Claims 1 – 20 Are On Appeal

The decision of the Examiner finally rejecting claims 1 – 20 is hereby appealed.

IV. STATUS OF AMENDMENTS

No Amendments were filed after the Final Rejection.

V. SUMMARY OF CLAIMED SUBJECT MATTER

A. Brief Description of the Invention

In brief, the present claimed invention is directed to a magazine-based data cartridge library. Claim 1 is the only independent claim in the present application.

The claimed library is generally comprised of: (a) a frame; (b) a shelf system; (c) drive means capable of receiving a data cartridge that contains recording medium wherein the drive means is also capable of reading and writing data to and from the medium; (d) a magazine transport device for moving a data cartridge, (e) a cartridge transport device for moving a data cartridge between a data cartridge magazine and the drive means; (f) a power supply for receiving AC power from an external environment and producing DC power in a form suitable for use by the drive means; (g) and a conductor, operatively attached to the frame, for conveying DC power from said power

supply to said drive means; wherein the conductor has a first flat external surface and a second flat external surface that is substantially parallel to said first flat external surface.

B. Problems in the Prior Art

Library systems generally archive data cartridges within the library, and hence efficient layout of other components within the library can translate into more space of archiving data cartridges, and thus, greater storage capacity. Today, libraries that employ multiple drives convey power from a power supply via multiple cables, each with a circular cross-section and each with a conductor surrounded by an insulating cover. Typically these cables are bundled together forming a cross-section that is roughly circular. The circular cross-sectional shape makes it awkward to “fit” the bundle with other elements of the library for efficient utilization of space within the library.

C. Description of the Present Invention

In the interest of brevity, the general components of the present invention (including the claimed "drive means") described in elements (a) – (f) in section V. A. above can be found described in greater detail in Appellant's written description between paragraphs [0001]-[0284]. For the convenience of the Board, certain sections applicable to a primary feature of the disclosed invention are quoted below:

[0162] Generally, the power supply system 216 provides DC power to the drives 210 using a flat conductor that has a substantially rectangular cross-section, rather than a conventional conductor that has circular cross-section. The use of a flat conductor allows the space within a library to be more efficiently used or used to accommodate more cartridges and/or more drives.

[0163] With reference to FIGS. 27A-27D, the power supply system 216 comprises a power supply 217 comprised of a box-like housing structure with a top side 676A, bottom side 676B, front side 676C, back side 676D, first side 676E, and second side 676F. Associated with the front side 676C are seven power supply bays 678 that each are capable of accommodating a sub-power supply. Generally, the power supply 217 includes a sub-power supply in one of the bays for providing DC power to elements in the library 202 other than the drives 210. The six other bays are populated with sub-power supplies depending on the

number of drive bay assemblies that are attached to the ladder frame 542. Generally, one sub-power supply is required for each drive bay assembly attached to the ladder frame 542. Also associated with the front side 676C of the power supply 217 is a pair of AC receptacles 680, with each receptacle capable of accommodating an AC plug through which AC power is provided to the power supply 216 for conversion to DC power. Also associated with the front side 676C is a set of breakers 282 that operate to sever the connection with the source of AC power when the power supply 216 is in an undesirable operating state, such as when the power supply 216 is drawing too much current from the AC source. The first side wall comprises a slot for accommodating an embodiment of a flat electrical power conductor 686 that has a first flat exterior face 686A and a second flat exterior face 686B that extends substantially parallel to the first flat exterior face 686B.

[0164] The flat, electrical power conductor 686 extends vertically and adjacent to one side of the ladder frame 542. In the illustrated embodiment, only one vertical standard 688 of the ladder frame 542 is shown. The flat, electrical power conductor 686 is supported by a channel member 690, which is attached to the ladder frame 542. The channel member 690, in addition to supporting the flat, electrical power conductor 686, also supports six power plugs 692A-292F, one plug for each of the compartments 544A-544F of the ladder frame 542. Each compartment 544A-544F of the ladder frame 542 is capable of accommodating a drive bay assembly that, in turn, is capable of accommodating up to four full height drives and up to eight half-height drives.

[0165] The flat, electrical power conductor 686 is attached to the channel member 690 using a plurality of hole hangers 694 that are attached to the conductor 686 and that each fit over a stud 696 extending from the channel member. The electrical connection between the flat, electrical power conductor 686 and each of the plugs 692A-692F is achieved with taps 698A-698D that are each connected to one of the planar electrical conductors 686 comprising the flat, electrical power conductor 686. To elaborate, any of the drives that can be associated with a drive bay assembly and the QIP associated with a drive bay assembly presently require a +5V signal, a +12V signal, and two ground paths (one for each of the voltage signals). Consequently, the flat, electrical power conductor 686 is a laminate of four electrical conductors, one for each of the two voltage signals and one for each of the two ground paths. If the library is modified so that different electrical signals are required, the flat, electrical power conductor 686 can be modified accordingly.

[0166] As shown in FIG. 27E, an electrical power connection is established between the flat, electrical power conductor 686 and a drive

bay assembly 700 in compartment 544F using a plug 702 that is associated with the QIP of the drive bay assembly 700 and that mates with the plug 692F. An electrical connection is established between the flat, electrical conductor 686 and the power supply 216 by a tap assembly 704 that extends between the conductor 686 and the points in the power supply that provide the necessary voltage signals and ground paths. It should be appreciated that the tap assembly 704 comprises a horizontally extending flat power conductor.

[0167] The distance between the first and second flat external faces 686A, 686B of the flat, electrical power conductor 686 is approximately 0.32 inches. In contrast, if a conventional round cable or bundled group of round cables were designed to be able to provide power to the same twenty-four drives 210, the cable or group of cables would have a cross-sectional measurement on the order of 3-4 inches.

[0168] It should be appreciated that the substantially rectangular cross-section shape of the flat, electrical power conductor 686 is complementary to the shapes of most of the other elements in the library 202. As a consequence, the flat, electrical power conductor 686 facilitates the layout of the library 202. In this regard, the flat surfaces 686A, 686B are located so as extend substantially parallel or perpendicular to many of the surfaces associated with elements residing in the library. For instance, the flat surfaces 686A, 686B extend substantially parallel or perpendicular to the exterior surfaces of the housing of the drive bay assembly 700. A horizontally extending flat, electrical power conductor, should one be needed, is also likely to facilitate the layout of a library.

[0169] It should also be appreciated that the flat, electrical power conductor 686 provides benefits in addition to spatial and/or layout related benefits. Namely, the power conductor 686 has a large capacitance that allows power to be provided to the drives in a highly responsive manner. Further, the electrical power conductor 686 produces less electrical "noise" than the prior approach. In addition, relative to the prior approach, the electrical power conductor 686 allows fewer connectors or plugs to be utilized. The use of fewer connectors or plugs is likely to relate to the production of less noise relative to the prior approach. It should be further appreciated that a flat, electrical power conductor can also be applied to a cartridge-based library."

VI. GROUND S OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection presented for consideration in this Appeal are:

- A. Whether claims 1 - 20 are properly rejected under 35 U.S.C. § 103 for obviousness, even though the applied references (Dimitri, VanFleet, and Gallo) are not properly combinable.
- B. Whether claims 1 -20 are properly rejected under 35 U.S.C. § 103 for obviousness, where the combination of the applied references does not teach or suggest the claimed invention.

VII. GROUPING OF CLAIMS

In compliance with 37 C.F.R. § 1.192(c)(5), Appellant states that claims 1 – 20 do not all stand or fall together.

VIII. ARGUMENT

A. Description of the References Cited by the Examiner.

1. REFERENCE ONE: Dimitri

Dimitri is directed to a quick access data storage library with backup capability featuring bins for supporting magazines containing data storage media. The magazines can be inserted in or withdrawn from front open sides of the bins by a front magazine picker or inserted in or withdrawn from back open sides of the bins by a back magazine picker. The magazines can be moved to drives by a transport assembly whereby storage media can be transported from the magazines to the drive.

As the Examiner admits, Dimitri fails to teach or suggest a power supply, operatively attached to the frame, for receiving AC power from an external environment and producing DC power in a form suitable for use by the drive means. Nor does Dimitri show a conductor, operatively attached to the frame, for conveying DC power from the power supply to the drive wherein the conductor has a first flat external surface and a second flat external surface that is substantially parallel to the first flat external surface.

2. REFERENCE TWO: VanFleet

The Examiner cited VanFleet to add to the disclosure of Dimitri a “power supply 58 (Fig. 2; Column 3, line 55), operatively attached to the frame, for receiving AC power

from an external environment and producing DC power in a form suitable for use by the drive means 54 (Fig. 2; Column 3, line 54), and a conductor 60, operatively attached to the frame, for conveying DC power from the power supply to the drive means (Column 1, lines 49-58 and column 3, lines 53-65)".

VanFleet is directed to a listening and display unit for playing and displaying audio recordings (such as music tapes). The unit includes a display surface for promotional and instructional messages, two or more audio jacks for connecting an audio player to a head phone jack, an AC/DC power unit to power the player units, and recessed areas for holding recordings in various media (see Abstract, Column 2, lines 53-67).

3. REFERENCE THREE: Gallo

The Examiner cited Gallo to add to the disclosure of Dimitri a "conductor has a first flat external surface and a second flat external surface this is substantially parallel to the first flat external surface."

Gallo is directed to a portable cartridge (shell) that encases a "self-contained" data storage drive device, such as a disc drive comprising built-in media. The portable cartridge conforms to the exterior dimensional form factor of a tape cartridge such that the cartridge may be stored in the same storage shelves of an automated tape library. The portable cartridge is adapted to be plugged into a port in the library via either a first external interface connector or a second external interface connector located at the ends of the portable cartridge (shell), such as in potentially a top position or bottom position. Dual flex cables contained within the portable cartridge (shell) connect the disc drive with the first and second external interface connectors.

B. Claims 1-20 Are Patentable

Claim 1 - 20 are patentable under 35 U.S.C. § 103(a) because the applied references fail to suggest or motivate one of ordinary skill in the art to combine the references. "When patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as

evidence of obviousness.” In re Sang-Su Lee, 277 F.3d 1338, 1343 (Fed. Cir. 2002). “The factual inquiry whether to combine references must be thorough and searching.” Id. Thus, a rejection for obviousness under § 103 “must explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious.” Id. (quoting In re Rouffet, 149 F.3d 1350, 1359 (Fed. Cir. 1998) (emphasis added)).

Even if the references were properly combinable, they do not meet a reasonable expectation of success and do not teach or suggest all the claimed limitations of the invention.

1. CLAIM 1 IS NON-OBVIOUS OVER DIMITRI IN VIEW OF VANFLEET AND GALLO

In the final Office Action of June 9, 2005, the Examiner rejected pending independent claim 1 under 35 U.S.C. § 103(a) as being unpatentable over Dimitri in view of VanFleet and in view of Gallo. On page 3, Examiner admits that Dimitri does not show a power supply, operatively attached to the frame, for receiving AC power from an external environment and producing DC power in a form suitable for use by the drive means. The Examiner asserted that VanFleet makes up for the deficiencies of Dimitri by combining VanFleet’s AC to DC power supply for use with VanFleet’s “players” as disclosed by VanFleet.

In contrast, as recited in claim 1 of Appellant’s invention, “a power supply, operatively attached to said frame, for receiving AC power from an external environment and producing DC power in a form suitable for use by said drive means.” A drive means is defined in Appellant’s invention as capable of both reading and writing data as supported by this quote, “one or more drives that are each capable of writing and/or reading data to/from a recording medium in a data cartridge” [Appellant’s Written Description, Paragraph 082].

Nowhere does VanFleet disclose a drive means capable of writing data on a recording medium. VanFleet fails to show a power supply for receiving AC power from an external environment and producing DC power in a form suitable for Appellant’s drive means. Because VanFleet fails to disclose this feature, the VanFleet power supply

and player units cannot be physically combined with Appellant's invention: "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." See *In re Ratti*, 270 F.2d 810, 123 USPQ 249 (C.C.P.A. 1959). Hence, VanFleet does not teach or suggest a power supply for receiving AC power from an external environment and producing DC power in a form suitable for Appellant's drive means.

On page 3 of the final Office Action, Examiner also admits that Dimitri does not show a conductor, operatively attached to the frame, for conveying DC power from the power supply to the drive wherein the conductor has a first flat external surface and a second flat external surface that is substantially parallel to the first flat external surface. Examiner asserts that Gallo makes up for the deficiency of Dimitri by combining Gallo's two ribbon cables with Gallo's self-contained data storage drive device all encased in a portable cartridge shell (See Gallo, Column 5, lines 1-11). The Examiner failed to provide any rationale for the combination of Gallo with Dimitri and VanFleet. Thus, the Examiner failed to meet his burden of stating a *prima facie* case of obviousness. See *In re Rouffet*, 149 F.3d 1350, 1359 (Fed. Cir. 1998).

Appellant's claimed invention includes a conductor with a first and second flat external surface operatively attached to the frame of the library to supply power to a drive that is adapted to receive a data cartridge for data storage purposes. As recited in claim 1, "a conductor, operatively attached to said frame, for conveying DC power from said power supply to said drive [means]; wherein said conductor has a first flat external surface and a second flat external surface that is substantially parallel to said first flat external surface." As described in Appellant's written description, Appellant's claimed conductor, attached to the frame, offers multiple advantages that are not taught or suggested by Gallo's ribbon cable. [Appellant's Written Description, Paragraphs 162-169]

Nowhere does Gallo show a conductor with a first external surface and a second flat external surface that is substantially parallel to the first flat external surface operatively attached to a library frame to supply power to a drive means adapted to read

and write data to and from a mobile storage medium from a magazine. In contrast, Gallo discloses a cartridge conforming to the dimensions of a tape cartridge to use in a tape cartridge library (See Gallo paragraph 0039). Contained inside Gallo's cartridge shell, hidden from view are dual flex cables 65 and 65' that are only attached to data storage drive interface 52 and flex cable terminations 71 and 71' (See Figs. 4-8). Gallo does not teach or suggest attaching the flex cables to Gallo's cartridge shell; in fact, Gallo uses the flex cables 65 and 65' to supply mechanical isolation between the data storage drive 60 and the cartridge shell (See paragraph 0030).

Furthermore, Gallo does not teach or suggest using a conductor with a first external surface and a second flat external surface that is substantially parallel to the first flat external surface operatively attached to a library frame. Even assuming, arguendo, that the Examiner's contention regarding the combined disclosure of Dimitri and Gallo is accurate, the proffered combination still fails to teach or suggest each feature of independent claim 1, such as Appellant's conductor attached to a library frame for supplying power to Appellant's drive means, and thus cannot establish prima facie obviousness of independent claim 1. See In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974)). "All words in a claim must be considered in judging the patentability of that claim against the prior art." See In re Wilson, 424 F.2d 1382, 1385, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970).

In light of the above arguments regarding Dimitri in view of VanFleet and Dimitri in view of Gallo, Appellant respectfully submits that the rejection of claim 1 under §103(a) should be reversed.

2. CLAIM 3 IS NON-OBVIOUS OVER DIMITRI IN VIEW OF VANFLEET AND GALLO

Dependent claim 3 stands rejected under 35 U.S.C. §103(a) as being unpatentable in view of the same combination of references applied to claim 1. The Examiner failed, however, to describe exactly which of the applied references renders obvious the additional element of claim 3.

As an initial matter, claim 3 depends directly from independent claim 1 which, as discussed above, is patentable over Dimitri and VanFleet and Gallo. “If an independent claim is nonobvious under 35 U.S.C. §103(a), then any claim depending therefrom is nonobvious.” See In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). Thus, even assuming, arguendo, that the references are combinable, as discussed above, the proffered combination still fails to teach or suggest each element of independent claim 1.

Further, according to the Examiner, an undisclosed reference includes elements recited from Appellant’s claim 3, namely, “the conductor is located so that the first flat external face is substantially parallel to one of the first side and third side.” If it is to be assumed that Gallo is the reference the Examiner intended to cite, the references still fail to teach or suggest this feature. For example, according to Gallo “Specifically, one of the flex cables 65 extends from the data storage drive interface 52 around the data storage drive 60 to the external interface 49 at the second end 54 of the opposite ends of the cartridge shell, and the second of the flex cables 65’ extends from the data storage drive interface 52 initially around the data storage drive 60 toward the second end of the opposite ends of the cartridge shell” (Paragraph 0027). Thus, at a minimum, Gallo teaches away from Appellant’s claimed structure and cannot render Appellant’s claim 3 obvious.

Appellant respectfully requests that the rejection of claim 3 under §103(a) be reversed.

3. CLAIMS 2 AND 4 ARE NON-OBVIOUS OVER DIMITRI IN VIEW OF VANFLEET AND GALLO

Dependent claims 2 and 4 stand rejected under 35 U.S.C. §103(a) as being unpatentable in view of the references described above. Claims 2 and 4 depend directly from independent claim 1 which, as discussed above, is distinguishable over Dimitri and VanFleet and Gallo. See In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988).

Furthermore, claim 2 describes a cabinet with four sides in addition to the elements recited by claim 1. The combined references fail to teach or suggest such a cabinet. Claim 4 describes the conductor being located so that the first flat external face

of the conductor is substantially perpendicular to the first side of the cabinet of claim 2. Again, the combined references, fail to teach or suggest the claimed orientation of the conductor, in conjunction with the cabinet of claim 2 and the conductor of claim 1.

Therefore, for the same reasons as set forth above, Appellant respectfully requests that the rejection of claims 2 and 4 under §103(a) be reversed.

4. CLAIM 5 IS NON-OBVIOUS OVER DIMITRI IN VIEW OF VANFLEET AND GALLO

Dependent claim 5 depends directly from independent claim 1 which, as discussed above, is distinguishable over the references. Furthermore, according to the Examiner, Gallo adds to the disclosure of Dimitri as including elements that are essentially recited from Appellant's claim 5, "the drive means includes a drive housing 60 ([0024]) with a substantially flat outer (top) surface; and the conductor is located so that the first flat external face of the conductor is substantially parallel to the substantially flat outer surface of the drive housing (Figs. 2-10)." Gallo's drive differs from Appellant's drive means because Gallo's drive is "an example of an encased, self contained, magnetic data storage drive of the desired form factor to fit within the cartridge shell 41 comprises the IBM Travelstar 2.5 inch series of magnetic data storage drives." (See paragraph [0024]). Furthermore, Gallo does not teach or suggest a conductor that is substantially parallel to a substantially flat outer surface and thus cannot render dependent claim 5 obvious. Appellant respectfully requests that the rejection of claim 5 under §103(a) be reversed.

5. CLAIM 6 IS NON-OBVIOUS OVER DIMITRI IN VIEW OF VANFLEET AND GALLO

Dependent claim 6 depends directly from dependent claim 5 which, as discussed above, is distinguishable over the references. According to the Examiner, Gallo adds to the disclosure of Dimitri as having elements that are essentially recited from Appellant's claim 6, a "substantially flat outer surface of the drive housing 60 (Fig. 2) is a horizontally extending surface". Even assuming, arguendo, that the Examiner's

combination of Dimitri, VanFleet, and Gallo is proper, and assuming that the Examiner's contention regarding the combined disclosure of Dimitri, VanFleet, and Gallo is accurate, the proffered combination still fails to teach or suggest each element of independent claim 1, such as “a conductor operatively attached to said (library) frame” or dependent claim 5 such as a conductor that is substantially parallel to a substantially flat outer surface and thus cannot render dependent claim 6 obvious. Further, as noted above, Gallo appears to teach away from the orientation described by Appellant's claim 6, and thus further weakens the Examiner's contention that claim 6 is rendered obvious by the proffered combination. Appellant respectfully requests that the rejection of claim 6 under §103(a) be reversed.

6. CLAIM 7 IS NON-OBVIOUS OVER DIMITRI IN VIEW OF VANFLEET AND GALLO

Dependent claim 7 depends directly from dependent claim 5 which, as discussed above, is distinguishable over the references. Furthermore, according to the Examiner, VanFleet and Gallo add to the disclosure of Dimitri as including all of the elements that are essentially recited from Appellant's claim 7, having a “cable 60 (Fig. 2; Column 3, line 60) is vertically extending. As the cable is replaced by the cable taught by Gallo et al as described above, the substantially flat outer surface of the drive housing is a vertically extending surface. The combination of Dimitri, VanFleet, and Gallo still fail to teach or suggest “a conductor operatively attached to said (library) frame” as recited in claim 1 the feature wherein the “conductor is located so that said first flat external face of said conductor is substantially parallel to said substantially flat outer surface of said drive” as recited in dependent claim 5. VanFleet shows an unattached, non substantially parallel cable exemplified by the cables wavy appearance (see Fig. 2 element 60). Hence, the combination of the references still fail to teach or suggest Appellant's claimed invention and cannot be combined and thus cannot render dependent claim 7 obvious. Appellant respectfully requests that the rejection of claim 7 under §103(a) be reversed.

7. CLAIM 8 IS NON-OBVIOUS OVER DIMITRI IN VIEW OF
VANFLEET AND GALLO

Dependent claim 8 depends directly from independent claim 1 which, as discussed above, is distinguishable over the references. The combination of the references still does not disclose every element recited by Appellant's claim 1. Dependent claim 8 depends directly from independent claim 1 which, as discussed above, are distinguishable over Dimitri and VanFleet and Gallo, (see *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). According to the Examiner, Dimitri shows "that the magazine transport device 110 (Fig. 5) includes a portion (the shaft of motor 98; Fig. 4, column 5, lines 21-27) that during operation, rotates about an axis." Appellant's invention features at least a portion if not the entire magazine transport device capable of rotating about an axis. Appellant is not drawing to components comprised by the magazine transport such as a "shaft and motor", rather Appellant is drawing to "a circular/cylindrical type, magazine-based data cartridge library" (see Appellant's paragraphs [0088 and 0089]). Hence, the combination of the references still fail to teach or suggest Appellant's claimed invention and cannot be combined and thus cannot render dependent claim 8 obvious. Appellant respectfully requests that the rejection of claim 8 under §103(a) be reversed.

8. CLAIMS 9 AND 10 ARE NON-OBVIOUS OVER DIMITRI IN VIEW
OF VANFLEET AND GALLO

Dependent claims 9 and 10 depend directly from dependent claim 8 which, as discussed above, is distinguishable over the references. The combination of the references still does not disclose every element recited by Appellant's claim 1.

Furthermore, according to the Examiner, in the constructed Dimitri and Gallo device, "the conductor is located so that the first flat external face lies in/or substantially parallel to a radial plane of the shaft on 98 that includes the axis depending on the vertical position of the assembly 70 (Figs 1 and 4)." The references Dimitri and Gallo do not show, teach or suggest a first flat external face of a conductor that "lies in a radial plane that includes said axis" as recited in Appellant's claim 9 or that "lies in a plane that is

substantially parallel to a radial plane that includes said axis”, as recited in claim 10 and therefore fail to render claims 9 and 10 prima facie obvious. Instead, the combined references show, at best, only a motor and a shaft component within a “picker” and say nothing about a conductor “located so that said first flat external face lies in a radial plane that includes said axis” that is attached to the library frame as recited in claim 9 or a conductor “located so that said first flat external face lies in a plane that is substantially perpendicular to a tangent of a circular arc having said axis as a center” as recited in claim 10. Therefore, Appellant respectfully requests that the rejection of claims 9 and 10 under §103(a) be reversed.

9. CLAIM 11 IS NON-OBVIOUS OVER DIMITRI IN VIEW OF
VANFLEET AND GALLO

Dependent claim 11 depends directly from dependent claim 8 which, as discussed above, is distinguishable over the references. Additionally, the combination of the references still does not disclose every element recited by Appellant's claim 1.

Furthermore, according to the Examiner, in the constructed Dimitri and Gallo device, a “conductor is located so that the first flat external face lies in a plane that is substantially perpendicular to a tangent of a circular arc having the axis as a center as the tangent is taken at the leftmost point on shaft of the motor 98” The references Dimitri and Gallo fail to show, teach or suggest this feature and therefore the Examiner does not show a prima facie case of obviousness for claim 11. Instead, the combined references show, at best, only a motor and a shaft component within a “picker” and say nothing about the placement of a conductor “located so that said first flat external face lies in a plane that is substantially perpendicular to a tangent of a circular arc having said axis as a center”, as recited in claim 11. Appellant thus respectfully requests that the rejection of claims 11 under §103(a) be reversed.

10. CLAIM 12 IS NON-OBVIOUS OVER DIMITRI IN VIEW OF
VANFLEET AND GALLO

Dependent claim 12 depends directly from independent claim 1 which, as discussed above, is distinguishable over the references. The combination of the references still does not disclose every element recited by Appellant's claim 1.

Furthermore, according to the Examiner, "Dimitri shows that the magazine transport device comprises a portion 70 that, during operation, moves in two orthogonal and rectilinear directions X and Y that define a plane." Even assuming, arguendo, that the Examiner's contention regarding movement feature of the transport device is accurate, the proffered combination still fails to teach or suggest each element of independent claim 1, such as "a conductor operatively attached to said (library) frame for example", and thus cannot render dependent claim 12 *prima facie* obvious. Appellant thus respectfully requests that the rejection of claims 12 under §103(a) be reversed.

11. CLAIM 13 IS NON-OBVIOUS OVER DIMITRI IN VIEW OF VANFLEET AND GALLO

Dependent claim 13 depends directly from dependent claim 12 which is distinguishable over the references. Furthermore, the combination of the references still does not disclose every element recited by Appellant's claim 1.

According to the Examiner, Dimitri further shows that the conductor is located so that the first flat external face is substantially parallel to the plane. Nowhere does Dimitri show teach or suggest this feature and thus cannot render dependent claim 13 *prima facie* obvious. Instead, Dimitri shows, at best, only the mechanics of a dual robotic library with power supplied with plugs to the robotic system in each of the robotics' bases by loose cords 122. Appellant thus respectfully requests that the rejection of claims 13 under §103(a) be reversed.

12. CLAIMS 12 AND 14 ARE NON-OBVIOUS OVER DIMITRI IN VIEW OF VANFLEET AND GALLO

Dependent claims 14 depends directly from dependent claim 12 which, as discussed above, is distinguishable over the references. Also, the combination of the references still does not disclose every element recited by Appellant's claim 1.

Furthermore, according to the Examiner, Dimitri shows that the magazine transport device comprises a portion 70 that, during operation, moves in two orthogonal and rectilinear directions X and Y that define a plane; and the conductor is located so that said first flat external face is substantially perpendicular to the plane. Nowhere does Dimitri show teach or suggest a conductor with a first flat external face substantially perpendicular to any plane and thus cannot render dependent claim 14 prima facie obvious. Instead, Dimitri shows, at best, only the mechanics of a dual robotic library with power supplied with plugs to the robotic system in each of the robotics' bases by loose cords 122. Appellant respectfully requests that the rejection of claims 14 under §103(a) be reversed.

13. CLAIM 15 IS NON-OBVIOUS OVER DIMITRI IN VIEW OF
VANFLEET AND GALLO

Dependent claim 15 depends directly from independent claim 1 which, as discussed above, is distinguishable over the references. The combination of the references still does not disclose every element recited by Appellant's claim 1.

Furthermore, according to the Examiner, Dimitri shows in Fig. 3 that the conductor including a plurality of laminated electrical conductors. Nowhere does Dimitri show teach or suggest a laminated electrical conductor and thus failing to show a prima facie case of obviousness for claim 15. Instead, Dimitri shows, at best, only the electro-mechanical picker. Appellant thus respectfully requests that the rejection of claims 15 under §103(a) be reversed.

14. CLAIM 16 IS NON-OBVIOUS OVER DIMITRI IN VIEW OF
VANFLEET AND GALLO

Dependent claim 16 depends directly from independent claim 1 which, as discussed above, is distinguishable over the references. The combination of the references still does not disclose every element recited by Appellant's claim 1.

Furthermore, according to the Examiner, Dimitri shows a tap that is electrically connected to the conductor and located between said conductor and the drive means.

Nowhere does Dimitri show teach or suggest a tap and thus cannot render dependent claim 16 prima facie obvious. Instead, Dimitri shows, at best, only shows “heavy duty” plugs in the robotic motor system. Appellant thus respectfully requests that the rejection of claims 16 under §103(a) be reversed.

15. CLAIM 17 IS NON-OBVIOUS OVER DIMITRI IN VIEW OF
VANFLEET AND GALLO

Dependent claim 17 depends directly from independent claim 1 which, as discussed above, is distinguishable over the references. The combination of the references still does not disclose every element recited by Appellant's claim 1.

Furthermore, according to the Examiner, Dimitri shows a plug comprising a first plug portion and a second plug portion that mates with the first plug portion; wherein the first plug portion is electrically connected to the conductor; and wherein the second plug portion is electrically connected to the drive means. Nowhere does Dimitri show teach or suggest this feature and thus cannot render dependent claim 17 prima facie obvious. Instead, Dimitri shows, at best, only the electro-mechanical picker. Appellant thus respectfully requests that the rejection of claims 17 under §103(a) be reversed.

16. THE EXAMINER ADMITS THAT CLAIM 18 IS NON-OBVIOUS
OVER DIMITRI IN VIEW OF VANFLEET AND GALLO

With regard to claim 18, the Examiner states that "Dimitri does **not** shows [sic] that the drive means includes a drive bay for housing at least two drives" (emphasis added). Thus, Appellant's believe that the Examiner erred in not passing at least claim 18 to allowance, since Dimitri (or VanFleet or Gallo) fails to teach or suggest the described two drive-housing of claim 18.

17. CLAIM 19 IS NOT RENDERED OBVIOUS BY THE COMBINATION
OF DIMITRI AND GALLO

Dependent claim 19 depends directly from independent claim 1 which, as discussed above, is distinguishable over the references. The combination of the references still does not disclose every element recited by Appellant's claim 1.

Furthermore, the Examiner asserts that with regard to claim 19 "Dimitri shows that the drive means includes a plurality of drives on the left and right sides, but does not show that they are situated in a vertical column." The Examiner asserts that Gallo makes up for Dimitri's deficiencies by showing "a library, wherein the data storage portable data storage cartridge with data storage device in each data storage cartridge is stored in the library". A data storage cartridge comprising a drive according to Gallo is not a drive means according to Appellant's invention, but is rather likened to a tape and hence cannot be combined with Dimitri to make up for the deficiencies in Dimitri to collectively disclose the features in Appellant's claimed invention. Hence, it would not have been obvious to one of ordinary skill in the art to combine a data cartridge arrangement according to Gallo in Dimitri's library and arrive at the Appellant's claimed invention. Appellant respectfully requests that the rejection of claim 19 under §103(a) be reversed.

18. CLAIM 20 IS NON-OBVIOUS OVER DIMITRI IN VIEW OF
VANFLEET AND GALLO

Dependent claim 20 depends directly from independent claim 1 which, as discussed above, is distinguishable over the references. The combination of the references still does not disclose every element recited by Appellant's claim 1.

Furthermore, Examiner asserts that in claim 20 "in the above constructed device, the [sic] VanFleet's power supply includes substantially horizontal top surface; and wherein at least a portion of the conductor is located above the horizontal top surface and with at least a portion of the first flat external face substantially parallel to the horizontal top surface." Nowhere does VanFleet show teach or suggest "a portion of said first flat external [sur]face [of a conductor] substantially parallel to said horizontal top surface" of the power supply and thus cannot render dependent claim 20 prima facie obvious. Instead, VanFleet describes a power cable loosely terminating in a power plug in the side

of a player unit (see column 3, lines 60-63). Appellant thus respectfully requests that the rejection of claim 20 under §103(a) be reversed.

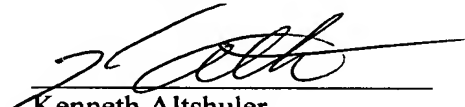
VIII. CONCLUSION

In conclusion, and for the foregoing reasons, Appellant respectfully requests reversal of the Examiner's rejections of claims 1 – 20.

While no fee is believed due with this submission, the Commissioner is hereby authorized to charge any additional fees associated with this submission, or credit any overpayment, to Deposit Account No. 50-0289.

Respectfully submitted,

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APPENDIX TO BRIEF ON APPEAL

The claims on appeal are as follows:

1. (Previously Amended) A data cartridge library comprising:
 - a frame;
 - a shelf system, operatively attached to said frame, for supporting at least two data cartridge magazines and comprising at least one shelf;
 - drive means that is operatively attached to said frame, capable of receiving, from a data cartridge transport device, a data cartridge that contains a recording medium, and capable, during operation, of transferring data between a recording medium located within a data cartridge and an environment that is exterior to said drive means;
 - a magazine transport device, operatively attached to said frame, for moving a data cartridge magazine;
 - a cartridge transport device, operatively attached to said frame, for moving a data cartridge between a data cartridge magazine and said drive means; and
 - a power supply, operatively attached to said frame, for receiving AC power from an external environment and producing DC power in a form suitable for use by said drive means; and
 - a conductor, operatively attached to said frame, for conveying DC power from said power supply to said drive means; wherein said conductor has a first flat external surface and a second flat external surface that is substantially parallel to said first flat external surface.
2. (Original) A data cartridge library, as claimed in claim 1, wherein said frame comprises:
 - a cabinet having a first side, second side, third side and fourth side;
 - wherein said first side is substantially parallel to said second side;
 - wherein said third side is substantially parallel to said fourth side; and
 - wherein said first side is substantially perpendicular to said third side.
3. (Original) A data cartridge library, as claimed in claim 2, wherein:
said conductor is located so that said first flat external face is substantially parallel to one of said first side and third side.
4. (Original) A data cartridge library, as claimed in claim 2, wherein:
said conductor is located so that said first flat external face is substantially perpendicular to said first side.
5. (Previously Amended) A data cartridge library, as claimed in claim 1, wherein:

said drive means comprises a drive housing with a substantially flat outer surface; and said conductor is located so that said first flat external face of said conductor is substantially parallel to said substantially flat outer surface of said drive housing.

6. (Previously Amended) A data cartridge library, as claimed in claim 5, wherein: said substantially flat outer surface of said drive housing is a horizontally extending surface.

7. (Previously Amended) A data cartridge library, as claimed in claim 5, wherein: said substantially flat outer surface of said drive housing is a vertically extending surface.

8. (Original) A data cartridge library, as claimed in claim 1, wherein: said magazine transport device comprises a portion that, during operation, rotates about an axis.

9. (Original) A data cartridge library, as claimed in claim 8, wherein: said conductor is located so that said first flat external face lies in a radial plane that includes said axis.

10. (Original) A data cartridge library, as claimed in claim 8, wherein: said conductor is located so that said first flat external face lies in a plane that is substantially parallel to a radial plane that includes said axis.

11. (Original) A data cartridge library, as claimed in claim 8, wherein: said conductor is located so that said first flat external face lies in a plane that is substantially perpendicular to a tangent of a circular arc having said axis as a center.

12. (Original) A data cartridge library, as claimed in claim 1, wherein: said magazine transport device comprises a portion that, during operation, moves in two orthogonal and rectilinear directions that define a plane.

13. (Original) A data cartridge library, as claimed in claim 12, wherein: said conductor is located so that said first flat external face is substantially parallel to said plane.

14. (Original) A data cartridge library, as claimed in claim 12, wherein: said conductor is located so that said first flat external face is substantially perpendicular to said plane.

15. (Original) A data cartridge library, as claimed in claim 1, wherein: said conductor comprising a plurality of laminated electrical conductors.

16. (Original) A data cartridge library, as claimed in claim 1, further comprising: a tap that is electrically connected to said conductor and located between said conductor and said drive means.

17. (Original) A data cartridge library, as claimed in claim 1, further comprising:
a plug comprising a first plug portion and a second plug portion that mates with said first
plug portion;
wherein said first plug portion is electrically connected to said conductor; and
wherein said second plug portion is electrically connected to said drive means.
18. (Original) A data cartridge library, as claimed in claim 1, wherein:
said drive means comprises a drive bay for housing at least two drives.
19. (Original) A data cartridge library, as claimed in claim 1, wherein:
said drive means comprises a plurality of drives that are situated in a vertical column.
20. (Original) A data cartridge library, as claimed in claim 1, wherein:
said power supply comprising a substantially horizontal top surface; and
wherein at least a portion of said conductor is located above said horizontal top surface
and with at least a portion of said first flat external face substantially parallel to said
horizontal
top surface.